TITLE 327 INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
LSA Document #97-311(F)

DIGEST

Amends 327 IAC 8 concerning the issuance of permits or approvals for construction of public water mains. Effective 30 days after filing with the secretary of state.

HISTORY

First Notice of Comment Period: April 1, 1996, Indiana Register (19 IR 1707).
Second Notice of Comment Period and Notice of First Hearing: July 1, 1997, Indiana Register (20 IR 2876).
Date of First Hearing: August 13, 1997.
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Date of Recall: October 1, 1998, Indiana Register (22 IR 128)
Date of Readoption: October 14, 1998
Effective Date: April 30, 1999

SECTION 1. 327 IAC 8-1-1 IS AMENDED TO READ AS FOLLOWS:

Rule 1. Public Water Supply Direct Additive and Indirect Additive Standards

327 IAC 8-1-1 Community water system; fluoridation; phosphate additives

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1
Affected: IC 13-13-5-1; IC 13-18-2

Sec. 1. Each community water system that adds a fluoride or phosphate compound shall comply with the following:

(1)Fluoride compounds may be added to such water supplies after receiving a construction permit from the commissioner providing the total content of fluoride ion (F^-) after such addition does not exceed two (2.0) milligrams per liter (mg/l) unless the public water system is a participant in an Indiana state department of health approved school fluoride adjustment program for which the concentration of fluoride in a school water supply shall not exceed five and one-half (5.5) mg/l.

(2) Phosphate additives may be added to the water for treatment of iron, manganese, scale and corrosion problems after receiving a construction permit from the commissioner. Such direct additives shall be in conformance with section 2 of this rule. Total phosphate concentration shall not exceed ten (10) mg/l measured as PO_4. Product may be provided in liquid or dry form. Containers in which the agents are packaged shall be labeled indicating

product information and general instructions for use. At a minimum, the label must display the name and application of product, percentage phosphate concentration as PO_4, and certification of American National Standards Institute (ANSI)/National Sanitation Foundation (NSF) International Standard 60, NSF Listings, Drinking Water Additives-Health Effects. In addition, if it is provided in liquid form, the label shall specify pH and specific gravity. The containers must also be marked identifying manufacturing batch number. All liquid products must be treated for bacteria control at the time of manufacture with a potably approved bacteria control agent. *(Water Pollution Control Board; 327 IAC 8-1-1; filed Sep 24, 1987, 3:00 p.m.: 11 IR 705;*

filed Dec 28, 1990, 5:10 p.m.: 14 IR 1003)

SECTION 2. 327 IAC 8-1-2 IS ADDED TO READ AS FOLLOWS:

327 IAC 8-1-2 Drinking water direct additives and indirect additives; certification requirements

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 2. (a) All public water systems shall comply with this section before the conclusion of ninety (90) days from the effective date of this rule.

(b) All direct additives in public water systems shall be certified for conformance to American National Standards Institute (ANSI)/National Sanitation Foundation (NSF) International Standard 60, NSF Listings, Drinking Water Additives-Health Effects. All public water systems must compile and maintain on file for inspection by the commissioner a list of all direct additives used that come into contact with the drinking water. This list must contain the name, the description, the manufacturer of the product, and whether the direct additive is certified under this section. The list must be maintained as long as the direct additives are used by the public water supply.

(c) The following new or modified indirect additives in public water systems shall be certified for conformance to American National Standards Institute (ANSI)/National Sanitation Foundation (NSF) International Standard 61, Classified or Recognized Drinking Water System Components, Component Materials and Treatment Additives Directory, except Section 9, Mechanical Plumbing Product:

(1) All indirect additives found in finished water storage facilities including lubricants, tank coatings, paints, and epoxies.

(2) All indirect additives between all entry points of the distribution system and all customer service connection meters.

(3) All filter and membrane media.

(4) All indirect additives which are classified in a category of indirect additives for which American National Standards Institute (ANSI)/National Sanitation Foundation (NSF) International Standard 61 is available.

(d) All public water systems must demonstrate certification of direct additives and indirect additives required by subsections (b) and (c) when inspected by the commissioner.

(e) Certification that a direct additive or an indirect additive meets the standards adopted in or pursuant to this rule shall be recognized as being listed with such certification in one of the following publications:

(1) "NSF Listings, Drinking Water Additives-Health Effects."

(2) "Classified or Recognized Drinking Water System Components, Component Materials and Treatment Additives Directory".

(f) The commissioner may approve the use of a direct or indirect additive in a public water system only after the applicant has demonstrated that the direct or indirect additive is in compliance with the following conditions:

(1) The direct or indirect additive has been approved and is listed by one of the publications specified by subsection (e).

(2) The direct or indirect additive has been approved by an organization having a third party certification program for direct or indirect additives that has been approved by the American National Standards Institute.

(g) The commissioner shall maintain a copy of the following:

(1) "NSF Listings, Drinking Water Additives-Health Effects."

(2) "Classified or Recognized Drinking Water System Components, Component Materials and Treatment Additives Directory".

(h) A public water system shall not willfully introduce, permit, or suffer the introduction of a direct additive or indirect additive into the drinking water that does not meet the requirements of this rule. *(Water Pollution Control Board; 327 IAC 8-1-2)*

SECTION 3. 327 IAC 8-1-3 IS ADDED TO READ AS FOLLOWS:

327 IAC 8-1-3 Definitions

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 3. In addition to the definitions contained in IC 13-11-2, the following definitions apply throughout this rule:

(1) "Direct additives" means additives that are used in public water systems for the treatment of raw water. Direct additives are also used to protect drinking water during storage and distribution. Examples of direct additives include the following:

(A) Agents used for coagulation and flocculation.

(B) Corrosion and scale control.

(C) Softening.

(D) Sequestering.

(E) Precipitation.

(F) pH adjustment.

(G) Disinfection and oxidation.

(H) Miscellaneous treatment applications.

(I) Miscellaneous water supply products.

(2) "Entry point of the distribution system" means one of the following points:

(A) in public water systems which utilize water treatment facilities, the point at which the drinking water has left the treatment facilities and has entered the distribution system.

(B) in public water systems which do not utilize water treatment facilities, the point at which the drinking water has left the supply facilities and has entered the distribution system.

(3) "Indirect additives" means additives that are materials or equipment that come in contact with drinking water or come in contact with drinking water direct additives. Examples of indirect additives include the following:

(A) Pipes.

(B) Valves and related products.

(C) Barrier materials.

(D) Joining and sealing materials.

(E) Protective materials and related products.

(F) Mechanical devices used in treatment, transmission, and distribution systems.

(4) "Operator" means the person in direct or responsible charge and supervising the operation of a wastewater or water treatment plant or a water distribution system.

(5) "Public water system" means a public water supply for the provision to the public of piped water for human consumption, if such system has at least fifteen (15) service connections or regularly serves an average of at least twenty-five (25) individuals daily at least sixty (60) days out of the year. The term includes any collection, treatment, storage, and distribution facilities under control of the operator of such system, including the operator or administrator of such system, and used primarily in connection with such system and any collection or pretreatment storage facilities not under such control that are used primarily in connection with such system. *(Water Pollution Control Board: 327 IAC 8-1-3)*

SECTION 4. 327 IAC 8-1-4 IS ADDED TO READ AS FOLLOWS:

327 IAC 8-1-4 Incorporation by reference

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-14-8

Sec. 4. The following materials, including titles and the names and addresses of where they may be located for inspection and copying, are incorporated by reference into this rule:

(1) "NSF Listings, Drinking Water Additives-Health Effects", November 13, 1997, National Sanitation Foundation (NSF) International, 3475 Plymouth Road, Ann Arbor, Michigan, 48113-0140 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255,

Indianapolis, Indiana 46206.

(2) “Classified or Recognized Drinking Water Systems Components, Component Materials and Treatment Additives Directory”, August, 1997, Underwriters Laboratory, Inc., Engineering Services, 416C, 333 Pfingsten Road, Northbrook, Illinois or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. *(Water Pollution Control Board: 327 IAC 8-1-4)*

SECTION 5. 327 IAC 8-3-1 IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-3-1 Definitions

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-12; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 1. In addition to the definitions contained in IC 13-11-2 and 327 IAC 1, the following definitions apply throughout this rule:

(1) "Connection ban" means an order imposed by the commissioner in accordance with section 4.2 of this rule.

(2) "Distribution system" means the piping, storage structures, pumps, and controls used to deliver water to the public.

(3) “Early warning order” means an order imposed by the commissioner in accordance with section 4.2 of this rule.

(4)"Experimental permit" means a construction permit issued for an installation, treatment process, or technique for which extensive experience and records of use have not been accumulated to meet the Safe Drinking Water Act requirements.

(5) “Normal operating pressure” means the water main pressure maintained regardless of public service load in the absence of extenuating circumstances.

(6) “Operator” means the person in direct or responsible charge and supervising the operation of a wastewater or water treatment plant or a water distribution system.

(7)“Peak operating flowrate” means the flowrate equal to maximum achievable capacity of the public water system.

(8) “Professional engineer” means a person who is registered as a professional engineer by the Indiana state board of registration for professional engineers under IC 25-31.

(9) "Public water system" means a public water supply for the provision to the public of piped water for human consumption, if such system has at least fifteen (15) service connections or regularly serves an average of at least twenty-five (25) individuals daily at least sixty (60) days out of the year. The term includes any collection, treatment, storage, and distribution facilities under control of the operator of such system, including the operator or administrator of such system, and used primarily in connection with such system and any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system.

(10) "Satisfactory quality" means the physical, chemical, and bacteriological quality of drinking water meeting the requirements set forth in this article.

(11) “Two (2) year average peak” means the arithmetic mean of the highest five (5) daily pumpages as reported over the previous two (2) year period on the public water system’s monthly report of operations on record with the department. If the public water system is less than two (2) years old, the term means the arithmetic mean of the highest five (5) daily pumpages as reported on the public water system’s monthly report of operations on record with the department.

(12) "Water main" means any pipe located between all entry points to the distribution system and all customer service connection meters. *(Water Pollution Control Board; 327 IAC 8-3-1; filed Sep 24, 1987, 3:00 p.m.: 11 IR 709; filed Oct 22, 1991, 5:00 p.m.: 15 IR 223)*

SECTION 6. 327 IAC 8-3-2 IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-3-2 Permits for construction of public water supplies; exemptions, experimental construction permits, emergency construction permits, after-the-fact construction permits

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-14-8; IC 13-18-2

Sec. 2. (a) No person shall cause or allow the construction, installation, or modification of any facility, equipment, or device for any public water system without having a valid construction permit issued therefore by the commissioner, except for replacement of equipment of similar design and capacity, none of which will change adversely the plant operation, its hydraulic design or waste products, or the distribution system design, operation, or capacity.

(b) After the commissioner has granted a construction permit, no changes in the application, plans, or specifications shall be made other than changes involving the replacement of equipment of similar design and capacity, none of which will change adversely the plant operation, its hydraulic design or waste products, or the distribution system design, operation, or capacity without first submitting in writing to the commissioner a detailed statement of such proposed changes and receiving an amended construction permit from the commissioner. Construction permits shall become void if the construction is not started within one (1) year from the date of issuance of the permit unless the duration of the permit has been extended by the commissioner after receiving a written request from the permittee, prior to the expiration of the permit, requesting such extension with no other changes to the permit, application, plans, or specifications as approved by the commissioner.

(c) The commissioner shall have the authority to specify in the permit any limits and conditions necessary to meet the issuance requirements of section 4 of this rule.

(d) The commissioner may revoke any construction permit for noncompliance with the limits and conditions specified in the permit, or if significant and unapproved changes are made in construction that differ from the application, plans, and specifications on which the issuance of the permit was based.

(e) The commissioner may issue construction permits for public water system facilities, equipment, or devices that are to be installed or constructed in stages. These construction permits may allow site preparation or foundation construction to begin where the following conditions have been met:

(1) Plans and specifications for additional facilities, equipment, or devices that will be used in the treatment, pumping, withdrawal, or conveyance of water for public consumption must be approved by the commissioner prior to the construction of said facilities, equipment, or devices in accordance with this section.

(2) Public water system facilities, equipment, or devices that are not used for the treatment, pumping, withdrawal, or conveyance of water for public consumption must conform to the requirements of the "Recommended Standards for Water Works" established by the Great Lakes—Upper Mississippi River Board of State Public Health and Environmental Managers, and the American Water Works Association (AWWA) standards.

(f) In order to encourage the development of new or more efficient treatment processes, the following type of construction permits may be issued:

(1) Experimental construction permits may be issued by the commissioner for installations, treatment processes, or techniques that have not developed extensive experience or records of use in the state of Indiana, provided that the applicant submits evidence that the installation, process, or technique will produce drinking water of satisfactory quality and normal operating pressure at the peak operating flowrate in accordance with this article.

(2) Regular construction permits may be issued for installations, treatment processes, or techniques that have been used for sufficient time to show that the installation, treatment process, or technique will produce drinking water of satisfactory quality and normal operating pressure at the peak operating flowrate in accordance with this article.

(g) For an emergency condition, as a result of a drought, storm, flood, or other natural or manmade disaster, the commissioner may issue an emergency construction permit.

(h) An after-the-fact construction permit must be obtained from the commissioner upon notification to the public water system by the commissioner of completed or progressing construction, installation, or modification of any facility, equipment, or device for any public water system lacking a valid construction permit issued from the department except where replacement of equipment of similar design and capacity will not change adversely the plant operation, its hydraulic design or waste products, or the distribution system design, operation, or capacity. The following additional conditions apply to after-the-fact construction permits:

(1) The commissioner may order that no additional construction may commence or continue progress until the after-the-fact construction permit has been obtained.

(2) As-built plans and specifications certified by a professional engineer registered in Indiana, covering all work performed without a valid construction permit issued by the commissioner must be submitted to the commissioner within one hundred twenty (120) days of notification to the public water system by the commissioner.

(3) Modifications as required by the commissioner after review of the as-built plans and specifications shall be made within the time limits specified by the commissioner.

(4) The commissioner may require interim measures taken during review of an after-the-fact

construction permit, including boil orders to ensure safe drinking water of satisfactory quality and normal operating pressure at the peak operating flowrate in accordance with this article.

(5) An after-the-fact construction permit does not relieve a public water system or any other person of any liability for construction without a valid permit from the commissioner. *(Water Pollution Control Board; 327 IAC 8-3-2; filed Sep 24, 1987, 3:00 p.m.: 11 IR 709; filed Oct 22, 1991, 5:00 p.m.: 15 IR 224)*

SECTION 7. 327 IAC 8-3-3 IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-3-3 Application for permits

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 4-21.5; IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 3. (a) A properly executed application form shall accompany the plans and specifications submitted to the commissioner for the purposes of obtaining a permit. Application forms may be obtained from the commissioner upon request or computer-generated if the computer-generated form is similar in appearance and identical in content to the form generated by the commissioner. A properly executed application form shall include the following:

(1) Name, address, identification number, and telephone number of the public water system.

(2) Name, address, and telephone number of the engineering firm and the developing firm.

(3) Name, address, and title of the person who is to receive the permit (generally the person representing the funding entity of the construction project).

(4) Location, brief description, and source of funding for the construction project.

(5) A list and corresponding mailing labels of all potentially affected parties as defined by IC 4-21.5-3-5(b).

(6) A dated signature certifying that, to the best of the public water system's knowledge, all potentially affected parties, as defined by IC 4-21.5-3-5(b), have been listed.

(b) The applications, plans, and specifications along with any reports and other information shall be submitted using a format and meeting content requirements approved by the commissioner.

(c) All plans, specifications, and applications must be prepared by or under the direct supervision of a professional engineer registered in Indiana and shall bear the seal and certification of the professional engineer certifying that construction of the proposed project following the application, plans, and specifications will produce drinking water of satisfactory quality and normal operating pressure at the peak operating flowrate in accordance with this article.

(d) A proposed construction project that is the subject of an application for a construction permit must be entirely independently based on existing public water system facilities or proposed construction projects with effective construction permits, issued by the commissioner, that are not the subject of the application.

(e) The commissioner may require additional information, within the context of a permit application, to determine whether the proposed facility will meet the issuance requirements of section 4 of this rule.

(f) Whenever the commissioner requires information, within the context of a permit application, regarding existing water supply facilities or water treatment works, or regarding the operation and maintenance thereof, this information shall be submitted to the commissioner within thirty (30) days of such request.

(g) A public water system proposing to install or construct facilities, equipment, or devices under a staged permitting process must submit the following along with the initial permit application as allowed under section 2(e) of this rule:

(1) A proposed schedule for the construction of the entire project.

(2) A proposed schedule for the application or applications for the remainder of the staged parts of the total construction project. *(Water Pollution Control Board; 327 IAC 8-3-3; filed Sep 24, 1987, 3:00 p.m.: 11 IR 710)*

SECTION 8. 327 IAC 8-3-4 IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-3-4 Issuance requirements

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 4. The commissioner may deny the application for any permit required by this rule (327 IAC 8-3) unless the applicant submits evidence that the following issuance requirements are met:

(1) The facility is designed to be constructed, modified, or installed, and operated in such a manner that it will not violate any of the sanitary or health regulations or requirements existing at the time of application for the permit.

(2) The facility conforms to the design criteria in the "Recommended Standards for Water Works" established by the Great Lakes—Upper Mississippi River Board of State Public Health and Environmental Managers, the American Water Works Association (AWWA) standards, or is based on such criteria acceptable to the commissioner which the applicant shows will produce drinking water of satisfactory quality and normal operating pressure at the peak operating flowrate in accordance with this article.

(3) The facility will conform to any additional requirements specified by the commissioner to produce consistently satisfactory results.

(4) The plans for wastewater disposal meet the requirements of the commissioner.

(5) All additional substantiating information requested by the commissioner has been submitted. *(Water Pollution Control Board; 327 IAC 8-3-4; filed Sep 24, 1987, 3:00 p.m.: 11 IR 710)*

SECTION 9. 327 IAC 8-3-4.2 IS ADDED TO READ AS FOLLOWS:

327 IAC 8-3-4.2 Public water system water main extension early warning order and connection ban

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-

18-4-1

Affected: IC 4-21.5; IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 4.2. (a) For use in this section, the public water system's capacity shall be calculated by the methods outlined in 327 IAC 8-3.3.

(b) The commissioner may issue an early warning order to a public water system if the public water system's highest daily pumpage, as reported over the previous two (2) year period, on the public water system's monthly report of operations, on record with the department, exceeds ninety percent (90%) of the public water system's capacity.

(c) An early warning order shall require the public water system to submit one of the following within one hundred and twenty (120) days of the date of an early warning order:

(1) A report regarding the public water system's:

(A) technical, managerial, and financial capacity demonstrating that the public water system can maintain normal operations and remain viable; and

(B) anticipated capacity utilization plans covering, in the minimum, the upcoming twenty-four (24) months.

(2) A report regarding the public water system's proposed plans, covering in the minimum the upcoming twenty-four (24) months, to increase the capacity of the public water system or to decrease the customer demand.

(3) A report demonstrating that the public water system's current two (2) year average peak does not exceed ninety percent (90%) of the public water system's capacity.

(d) The commissioner may impose a connection ban under circumstances where:

(1) one hundred and twenty (120) calender days have passed since the issuance date of the early warning order;

(2) the public water system's current two (2) year average peak exceeds ninety percent (90%) of the public water system's capacity; and

(3) one of the following has occurred:

(A) The public water system has not complied with subsection (c).

(B) The public water system has failed to demonstrate that the public water system's technical, managerial, and financial capacity can maintain normal operations and remain viable.

(C) The public water system has failed to implement the public water system's proposed twenty-four (24) month plan to increase the capacity of the public water system or decrease the customer demand.

(e) The connection ban imposed by the commissioner shall prohibit the connection of additional water main extensions to the public water system.

(f) The commissioner shall give written notification to the public water system, by certified mail with return receipt requested, of the decision to impose an early warning order or a connection ban.

(g) The commissioner may terminate an early warning order or a connection ban only after the commissioner has approved one of the following:

(1) A report submitted pursuant to subsection (c).

(2) A report demonstrating that the public water system's current two (2) year average peak does not exceed ninety percent (90%) of the public water system's capacity.

(h) A project with a valid construction permit, issued by the commissioner, with an effective date preceding a connection ban issued by the commissioner, is exempt from the connection ban.

(i) An emergency construction permit, as described in section 2(f) of this rule, may be issued by the commissioner to a public water system with a connection ban.

(j) A public water system aggrieved by the imposition of an early warning order, a connection ban, or a denial to terminate an early warning order or a connection ban may appeal the decision of the commissioner at a hearing held in accordance with IC 4-21.5. *(Water Pollution Control Board; 327 IAC 8-3-4.2)*

SECTION 10. 327 IAC 8-3-5.5 IS ADDED TO READ AS FOLLOWS:

327 IAC 8-3-5.5 Duration of the commissioner's review of an application, plans, and specifications

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-15-4-11; IC 13-18-2

Sec. 5.5. (a) The commissioner must approve or deny a construction permit application:

(1) for water treatment facilities within a total of one hundred twenty (120) days; or

(2) for all other proposed construction to a public water system within a total of sixty (60) days.

(b) The total of days, as specified in subsection (a), shall include all calendar days from the commissioner's date-stamped receipt of the application, plans, specifications and if required fee, excluding the calendar days between the following activities:

(1) A commissioner's written notification to the applicant that the application, plans, and specifications do not fulfill the requirements of section 4 of this rule or are incomplete, inaccurate, or indicate the proposed construction will not produce drinking water of satisfactory quality and normal operating pressure at the peak operating flowrate in accordance with this article.

(2) The commissioner's date-stamped receipt of the applicant's submittal of additional information subsequent to the commissioner's notification, as described in subdivision (1) to demonstrate that the application, plans, and specifications fulfill the requirements of section 4 of this rule and are complete, are accurate, and indicate the proposed construction will produce drinking water of satisfactory quality and normal operating pressure at the peak operating flowrate in accordance with this article.

(c) The commissioner's failure to comply with this section is subject to IC 13-15-4-11. *(Water Pollution Control Board; 327 IAC 8-3-5.5)*

SECTION 11. 327 IAC 8-3-5.7 IS ADDED TO READ AS FOLLOWS:

327 IAC 8-3-5.7 Notification of construction

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 5.7. The permittee must notify the commissioner a minimum of ten (10) days, excluding Saturdays, Sundays, and state of Indiana holidays, before exercising a permit issued by the commissioner in accordance with this rule. The notification must include the following information:

(1) The construction permit number assigned by the commissioner.

(2) The location of the construction.

(3) A description of the construction.

(4) Anticipated duration of the construction.

(5) The phone number of the permittee or permittee's representative who will be present during the construction. *(Water Pollution Control Board; 327 IAC 8-3-5.7)*

SECTION 12. 327 IAC 8-3-7 IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-3-7 Fees

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-16-1-2; IC 13-18-2; IC 36-1-2-23

Sec. 7. (a) The following governmental entities shall be excluded from payment of fee as described in subsection (b):

(1) County, municipality, or township that is defined as a unit under IC 36-1-2-23.

(2) A nonprofit organization.

(3) A conservancy district.

(4) A school corporation.

(5) A regional water or sewage district.

(b) The following fee schedule has been established to defer administrative costs, pursuant to IC 13-16-1-2:

TYPE	PROCESSING FEE
New public water supply treatment plant:	
Ground water:	
Up to 500,000 gallons per day	$875
Greater than 500,000 gallons per day	$1,750
Surface water:	
Up to 500,000 gallons per day	$1,250
Greater than 500,000 gallons per day	$2,500
Public water supply treatment plant expansion:	
Up to fifty percent (50%) design capacity:	

Greater than 500,000 gallons per day	$1,250
Up to 500,000 gallons per day	$625
Greater than fifty percent (50%) design capacity:	
Greater than 500,000 gallons per day	$2,500
Up to 500,000 gallons per day	$1,250
Other water treatment facilities:	
Wells	$500
Pump or pump station	$100
Chemical addition	$250
Storage tank	$200
Miscellaneous process modification	$50 per process
All water distribution system:	
2,501 - 5,000 linear feet	$150
5,001 - 10,000 linear feet	$250
Greater than 10,000 linear feet	$500

(c) A fee shall be remitted with each application made in accordance with the schedule in subsection (b). Checks shall be made payable to the department of environmental management.

(d) The fee shall not be refundable once staff review and processing of the permit application has commenced. *(Water Pollution Control Board; 327 IAC 8-3-7; filed Oct 22, 1991, 5:00 p.m.: 15 IR 225)*

SECTION 13. 327 IAC 8-3-8 IS ADDED TO READ AS FOLLOWS:

327 IAC 8-3-8 Incorporation by reference

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1;IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2;

Sec. 8. Recommended Standards for Waterworks, 1997 Edition, Great Lakes—Upper Mississippi River Board of State Public Health and Environmental Managers, is incorporated by reference into this rule and may be obtained from Health Education Services, P.O. Box 7126, Albany, New York 12224 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. *(Water Pollution Control Board; 327 IAC 8-3-8)*

SECTION 14. 327 IAC 8-3.1 IS ADDED TO READ AS FOLLOWS:

Rule 3.1. Permitting Authority of Units for Water Main Extension Construction

327 IAC 8-3.1-1 Definitions

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1;IC 13-18-3-1; IC 13-18-3-

12; IC 13-18-4-1
Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2; IC 23-31; IC 25-31; IC 36-1-2-23

Sec. 1. In addition to the applicable definitions contained in IC 13-11-2 and 327 IAC 8-3.2-1, the following definitions apply throughout this rule:

(1) "Professional engineer" means a person registered as a professional engineer by the Indiana state board of registration for professional engineers under IC 25-31.

(2) "Water main" means any pipe located between all entry points to the distribution system and all customer service connection meters.

(3) "Unit" means county, municipality, or township as set forth in IC 36-1-2-23. *(Water Pollution Control Board; 327 IAC 8-3.1-1)*

327 IAC 8-3.1-2 Permitting Authority and Responsibilities
Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-3-12; IC 13-18-4-1
Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 2. (a) The plans for a water main extension are not required to be submitted to any state agency for a permit, permission, or review, unless required by the federal law, if the following are met:

(1) A person submits plans to a unit concerning the design or construction of a public water main.

(2) A professional engineer prepared the plans.

(3) The unit provided a review of the plans by a qualified engineer and subsequently approved the plans.

(4) All other requirements specified in this rule and all other rules adopted by the water pollution control board are met.

(b) The proposed construction of a water main must be in accordance with the following:

(1) The Safe Drinking Water Act, 42 U.S.C. 300f-300j-26, as amended * .

(2) The Clean Water Act, 33 U.S.C. 1251-1387, as amended ** .

(c) The other requirements specified in rules that have been adopted by the water pollution control board and must be adhered to in the permitting of a public water main include the following:

(1) 327 IAC 8-1: Public Water Supply Direct Additive and Indirect Additive Standards

(2) 327 IAC 8-2: Drinking Water Standards

(3) 327 IAC 8-3.2: Technical Standards for Water Mains

(4) 327 IAC 8-3.3: Public Water System Quantity Requirement Standards

(5) 327 IAC 8-7: Water Supply and Distribution Systems; Schools and Related Buildings

(6) 327 IAC 8-8: Water Supply and Distribution Systems; Mobile Home Parks

(7) 327 IAC 8-9: Water Supply and Distribution Systems; Agricultural Camps

(8) 327 IAC 8-10: Cross Connections; Control; Operation

(d) Units shall notify the commissioner of all public water main construction permits, that the unit has issued, by submitting to the department, on the effective date of the permit, a copy of each

issued permit. Each submission shall contain the following information for each issued permit:

(1) Identification number that has been issued by the local unit.

(2) Effective date of the permit.

(3) The county where the construction project is to be located.

(4) The location of the construction project in terms of the following:

(A) Nearest public intersection.

(B) Quarter section, section, township, and range of the approximate center of the construction project.

(C) If the information requested by clause (B) is not available, the latitude and longitude of the approximate center of the construction project to the nearest fifteen (15) seconds.

(5) The maximum number of proposed service connections to the water main.

(6) A description and numerical count of the type or types of facilities to be located at each proposed service connection whether:

(A) residential;

(B) commercial; or

(C) industrial

(7) A project layout map on an eight and one-half (8.5) inch by eleven (11) inch sheet of paper.

(e) The commissioner may approve alternatives to the notification procedure described in subsection (d) if requested. The alternative notification procedure must provide equivalent information to that required under subsection (d) to be considered for approval. *(Water Pollution Control Board; 327 IAC 8-3.1-2)*

* The Safe Drinking Water Act as amended on August 6, 1996, is incorporated by reference and may be found at 42 U.S.C. 300f to 42 U.S.C. 300j-26 and is available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center North, 100 North Senate Avenue, Indianapolis, Indiana 46206.

** The Clean Water Act in effect on January 1, 1989, and amended on December 16, 1996, is incorporated by reference and may be found at 33 U.S.C. 1251 to 33 U.S.C. 1387 and is available from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center North, 100 North Senate Avenue, Indianapolis, Indiana 46206.

SECTION 15. 327 IAC 8-3.2 IS ADDED TO READ AS FOLLOWS:

Rule 3.2. Technical Standards for Water Mains

327 IAC 8-3.2-1 Definitions

Authority: IC 13-13-5-1; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-

18-2; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3-1; IC 13-18-4-1; IC 25-31

Sec. 1. In addition to the definitions contained in IC 13-11-2 and 327 IAC 8-3-1, the following definitions apply throughout this rule:

(1) "100-year flood" means a flood with an occurrence probability of one percent (1%) each year as determined by the Indiana department of natural resources.

(2) "Accessories" means the constituent elements of a water main, such as pipes, fittings, valves, pumps, and hydrants.

(3) “ASTM standards” means the recommended standards certified by the American Society for Testing and Materials.

(4) “AWWA/ANS standards” means the American National Standard approved by the American Water Works Association.

(5) "Dead-end main" means a portion of a water main that has flow in only one (1) direction and has no planned future extension.

(6) "Fire flow" means the rate of water flow intended for providing fire protection.

(7) “Nonpermeable” means to be constructed of ductile iron with solvent resistant gasket materials or welded steel pipes.

(8) "Normal operating pressure" means the water main pressure maintained regardless of public service load in the absence of extenuating circumstances.

(9) "Professional engineer" means a person who is registered as a professional engineer by the Indiana state board of registration for professional engineers under IC 25-31.

(10) "Transmission main" means any pipe that:

(A) transports water from a surface water intake to a surface water treatment plant;

(B) transports water from a groundwater intake (well) to a water treatment plant (if present);

(C) transports finished water from the treatment plant (if present) to the entry point of the distribution system; or

(D) is installed for the purpose of interconnecting separate public water systems.

(11) “Two (2) year average peak” means the arithmetic mean of the highest five (5) daily pumpages as reported over the previous two (2) year period on the public water system’s monthly report of operations on record with the department. If the public water system is less than two (2) years old, the term means the arithmetic mean of the highest five (5) daily pumpages as reported on the public water system’s monthly report of operations on record with the department.

(12) "Water main" means any pipe located between all entry points to the distribution system and all customer service connection meters. *(Water Pollution Control Board; 327 IAC 8-3.2-1)*

327 IAC 8-3.2-2 Incorporation by reference

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-14-8; IC 13-18-2

Sec. 2. (a) The following materials, including titles and the names and addresses of where they may be located for inspection and copying, are incorporated by reference into this rule:

(1) The American Society for Testing and Materials standards listed throughout this rule are available in 1996 Annual Book of ASTM Standards, Part 34, Plastic Pipe and Building Products, 1996 Edition, American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206.

(2) The American Water Works Association (AWWA) standards listed throughout this rule are available from the American Water Works Association, 6666 West Quincy Avenue, Denver, Colorado 80235 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. Notwithstanding language to the contrary in the primarily incorporated documents, the version of all secondarily incorporated documents, which are documents referred to in the primarily incorporated documents, shall be the version in effect on the date of final adoption of this rule.

(b) The technical standards presented in subsection (a) are continuously revised on a twenty-four month cycle. The commissioner shall commence rulemaking efforts to update the documents incorporated by reference in this section. *(Water Pollution Control Board; 327 IAC 8-3.2-2)*

327 IAC 8-3.2-3 Applicability

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 3. The technical standards established in this rule are applicable to the design and construction of all new or modified water main extensions constructed in Indiana as specified in 327 IAC 8-3 or 327 IAC 8-3.1 and to the applications, plans, and specifications of those water main extensions. *(Water Pollution Control Board; 327 IAC 8-3.2-3)*

327 IAC 8-3.2-4 Certification

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 4. A professional engineer must certify that the water main designs as shown on the application, plans, and specifications are in compliance with this rule. *(Water Pollution Control*

Board; 327 IAC 8-3.2-4)

327 IAC 8-3.2-5 Additional information on construction permit applications

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 5. (a) In addition to the information on the application for construction permit required in 327 IAC 8-3-3, the following information shall be provided with each application for water main extension covered by this rule:

(1) Information describing the project as a new water main, the replacement of an existing water main, or the relocation of an existing water main.

(2) The piping material types, sizes, classes, pressure ratings, and length.

(3) The total length of water main piping.

(4) Types of joints.

(5) Minimum depth of cover.

(6) A statement that indicates the following:

(A) If the water main will provide fire protection.

(B) How the water main will be pressure and leak tested, and disinfected.

(C) If the water main will cross any streams, rivers, or other bodies of water.

(D) If the project area has a history of external corrosion problems.

(7) Information describing how the water main will be anchored at:

(A) each tee, bend, and dead-end; and

(B) any hydrants or other accessories.

(8) The minimum horizontal and vertical separation distances from the water mains and any sanitary or storm sewers.

(9) The spacing between isolation valves and the spacing between hydrants.

(10) The current number of service connections served by the public water system.

(11) The public water system's current two (2) year average peak.

(12) The capacity of the public water system as determined by use of the methods described in 327 IAC 8-3.3-3.

(13) The number and type of service connections added by the water main extension and the corresponding fire flow, average and peak daily customer demand and peaking factor as determined by use of the methods described in 327 IAC 8-3.3-2.

(14) Flow test information indicating the flowrate, static pressure, residual pressure, date and time of flow test, elevation of flow test location, and the lengths, material types, and diameters of the water main from the flow test location to the point of connection to the water main extension.

(b) In addition to the certifications on the application for construction permit required in 327 IAC 8-3-3, a certification signed and dated by the public water system certifying the public water system has agreed to furnish drinking water to the water main extension and that the public water system has acknowledged the responsibility for examining the application, plans, and specifications

to determine that the water main extension meets local rules, laws, regulations, and ordinances shall be provided with each application for water main extension covered by this rule.

(c) The plans required to be submitted, with an application for construction permit specified in 327 IAC 8-3-3, must bear, on each page of the plans, a dated signature and seal of a professional engineer and must include the following:

(1) Location of existing and proposed roads and lot boundaries.

(2) Location of existing and proposed water main pipes indicating the lengths, diameters, and material types of the water main pipes.

(3) Location of existing and proposed hydrants, isolation valves, road casings, blow-off assemblies, and other accessories.

(4) Location of proposed reaction blocking.

(5) Location of existing and proposed sanitary sewers, storm sewers, and culverts.

(6) Elevation contours at one (1) or two (2) foot intervals.

(7) Delineation of the 100-year floodway and flood plain. *(Water Pollution Control Board; 327 IAC 8-3.2-5)*

327 IAC 8-3.2-6 Required easements; other permits

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 6. (a) All easements for water main rights-of-way must prohibit the construction of any permanent structure over the water main and must also provide enough access for maintenance with modern mechanical equipment.

(b) All required permits or exemptions from other government entities must be obtained prior to the commencement of construction of any water mains covered by this rule. *(Water Pollution Control Board; 327 IAC 8-3.2-6)*

327 IAC 8-3.2-7 Additional issuance requirements for construction permits

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 7. (a) For use in this section, the public water system's capacity, the average daily customer demand, and the peaking factor shall be calculated by the methods outlined in 327 IAC 8-3.3-2.

(b) In addition to the issuance requirements for a construction permit described in 327 IAC 8-3-4, the commissioner may deny an application for construction of a water main extension unless the applicant submits evidence that the following issuance requirements are met:

(1) The public water system's current two (2) year average peak is less than ninety percent (90%) of the public water system's capacity.

(2) The sum of the public water system's current two (2) year average peak and the product

of the following is less than ninety percent (90%) of the public water system's capacity:

(A) The average daily customer demand resulting from the proposed water main extension.

(B) The peaking factor resulting from the proposed water main extension.

(Water Pollution Control Board; 327 IAC 8-3.2-7)

327 IAC 8-3.2-8 Water main materials

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 8. (a) All piping, accessories, and other materials in a water main shall conform to 327 IAC 8-1, contain less than eight percent (8%) by mass lead, and conform to the following applicable standards:

(1) For ductile-iron and fittings, the following standards apply:

(A) C104/A21.4-95 American National Standard for Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water.

(B) C105/A21.5-93 American National Standard for Polyethylene Encasement for Ductile-Iron Pipe Systems.

(C) C110/A21.10-93 American National Standard for Ductile-Iron and Gray-Iron Fittings, 3 In. through 48 In. (75 mm through 1200 mm), for Water and Other Liquids.

(D) C111/A21.50-90 American National Standard for Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.

(E) C115/A21.15-94 American National Standard for Flanged Ductile-Iron Pipe or Gray-Iron Threaded Flanges.

(F) C150/A21.50-91 American National Standard for the Thickness Design of Ductile-Iron Pipe.

(G) C151/A21.51-91 American National Standard for Ductile-Iron Pipe, Centrifugally Cast, for Water or Other Liquids.

(H) C153/A-21.53-94 American National Standard for Ductile-Iron Compact Fittings, 3 In. through 24 In. (76 mm through 610 mm) and 54 In. through 64 In. (1,400 mm through 1,600 mm), for Water Service.

(2) For steel pipe, the following standards apply:

(A) C200-91 AWWA Standard for Steel Water Pipe, 6 In. (150 mm) and Larger.

(B) C203-91 AWWA Standard for Coal-Tar Protective Coatings and Linings for Steel Water Pipelines-Enamel and Tape-Hot-Applied.

(C) C205-89 AWWA Standard for Cement-Mortar Protective Lining and Coating for Steel Water Pipe-4 In. And Larger-Shop Applied.

(D) C206-91 AWWA Standard for Field Welding of Steel Water Pipe.

(E) C207-94 AWWA Standard for Steel Pipe Flanges for Waterworks Service-Sizes 4 In. through 144 In. (100 mm through 3,600 mm).

(F) C208-83(R89) AWWA Standard for Dimensions for Fabricated Steel Water Pipe Fittings.

(G) C209-90 AWWA Standard for Cold-Applied Tape Coatings for the Exterior of Special Sections, Connections, and Fittings for Steel Water Pipelines.

(H) C210-92 AWWA Standard for Liquid-Epoxy Coating Systems for the Interior and Exterior of Steel Water Pipelines.

(I) C213-91 AWWA Standard for Fusion-Bonded Epoxy Coating for the Interior and Exterior of Steel Water Pipelines.

(J) C214-89 AWWA Standard for Tape Coating Systems for the Exterior of Steel Water Pipelines (includes addendum C214a-91).

(K) C215-94 AWWA Standard for Extruded Polyolefin Coatings for the Exterior of Steel Water Pipelines.

(L)C216-94 AWWA Standard for Heat-Shrinkable Cross-Linked Polyolefin Coatings for the Exterior of Special Sections, Connections, and Fittings for Steel Water Pipelines.

(M) C217-90 AWWA Standard for Cold-Applied Petrolatum Tape and Petroleum Wax Tape Coatings for the Exterior of Special Sections, Connections, and Fittings for Buried Steel Water Pipelines.

(N) C218-91 AWWA Standard for Coating the Exterior of Aboveground Steel Water Pipelines and Fittings.

(O) C219-91 AWWA Standard for Bolted, Sleeve-Type Couplings for Plain-End Pipe.

(P) C220-92 AWWA Standard for Stainless-Steel Pipe, 4 In. (100 mm) and Larger.

(3) For concrete pipe, the following standards apply:

(A) C300-89 AWWA Standard for Reinforced Concrete Pressure Pipe, Steel-Cylinder Type, for Water and Other Liquids (Includes addendum C300a-93).

(B) C301-92 AWWA Standard for Prestressed Concrete Pressure Pipe, Steel-Cylinder Type, for Water and Other Liquids.

(C) C302-95 AWWA Standard for Reinforced Concrete Pressure Pipe, Noncylinder Type.

(D) C303-95 AWWA Standard for Concrete Pressure Pipe, Bar-Wrapped, Steel-Cylinder Type.

(E) C304-92 AWWA Standard for Design of Prestressed Concrete Cylinder Pipe.

(4) For asbestos-cement pipe, the following standards apply:

(A) C400-93 AWWA Standard for Asbestos-Cement Pressure Pipe, 4 In. through 16 In. (100 mm through 400 mm), for Water Distribution Systems.

(B) C401-93 AWWA Standard for the Selection of Asbestos-Cement Pressure Pipe, 4 In. 16 In. (100 mm through 400 mm), for Water Distribution Systems.

(C) C402-89 AWWA Standard for Asbestos-Cement Transmission Pipe, 18 In. through 42 In. (450 mm through 1,050 mm), for Potable Water and Other Liquids.

(D) C403-89 AWWA Standard for the Selection of Asbestos-Cement Transmission and Feeder Main Pipe, Sizes 18 In. through 42 In. (450 mm through 1,050 mm).

(5) For valves and hydrants, the following standards apply:

(A) C500-93 AWWA Standard for Metal-Seated Gate Valves for Water Supply Service (includes addendum C500a-95).

(B) C501-92 AWWA Standard for Cast-Iron Sluice Gates.

(C) C502-94 AWWA Standard for Dry-Barrel Fire Hydrants (includes addendum C502a-95).

(D) C503-88 AWWA Standard for Wet-Barrel Fire Hydrants.

(E) C504-94 AWWA Standard for Rubber-Seated Butterfly Valves.

(F) C507-91 AWWA Standard for Ball Valves 6 In. through 48 In. (150 mm through 1,200 mm).

(G) C508-93 AWWA Standard for Swing-Check Valves for Waterworks Service, 2 In. (50 mm) through 24 In. (600 mm) NPS (includes addendum C508a-93).

(H) C509-94 AWWA Standard for Resilient-Seated Gate Valves for Water Supply Service (includes addendum C509a-95).

(I) C510-92 AWWA Standard for Double Check Valve Backflow-Prevention Assembly.

(J) C511-92 AWWA Standard for Reduced-Pressure Principle Backflow-Prevention Assembly.

(K) C512-92 AWWA Standard for Air-Release, Air/Vacuum, and Combination Air Valves for Waterworks Service.

(L) C540-93 AWWA Standard for Power-Actuating Devices for Valves and Sluice Gates.

(M) C550-90 AWWA Standard for Protective Epoxy Interior Coatings for Valves and Hydrants.

(6) For plastic pipe, the following standards apply:

(A) C900-89 AWWA Standard for Polyvinyl Chloride (PVC) Pressure Pipe, 4 In. through 12 In.for Water Distribution (includes addendum C900a-92).

(B) C901-88 AWWA Standard for Polyethylene (PE) Pressure Pipe and Tubing, ½ In. through 3 In., for Water Service.

(C) C905-88 AWWA Standard for Polyvinyl Chloride (PVC) Water Transmission Pipe, Nominal Diameters 14 In. through 36 In.

(D) C906-90 AWWA Standard for Polyethylene (PE) Pressure Pipe and Fittings, 4 In. through 63 In., for Water Distribution.

(E) C907-91 AWWA Standard for Polyvinyl Chloride (PVC) Pressure Fittings for Water-4 In. through 8 In. (100 mm through 200 mm).

(F) American Society for Testing and Materials (ASTM) D2239-96A Specifications for PE Plastic Pipe (SDR-PR).

(G) ASTM D2241-96A Specifications for PVC Plastic Pipe (SDR-PR).

(H) ASTM D3350-96 Specifications for PE Plastic Pipe and Fitting Materials.

(b) All water mains installed in areas of ground water contamination, consisting of solvent, petroleum, or other volatile or semi-volatile organic compounds, shall be constructed with nonpermeable piping and accessories.

(c) Piping and accessories previously used exclusively for water mains may be reused if:

(1) the piping or accessories comply with the requirements of subsection (a); and

(2) the piping or accessories have been restored to their original condition.

(d) All connections between pipes shall have mechanical joints or slip-on joints with rubber gaskets with the exception of:

(1) steel pipe that may be welded;

(2) polyethylene (PE) pipes that may be thermojointed by a person who is a manufacturer's certified thermojointer; or

(3) piping described in section (10) (d) of this rule.

(e) Water mains constructed with PVC and installed under existing or proposed roadways and railroads shall be cased in conformance with AWWA Standard C900-89, Appendix A or AWWA Standard C905-88, Appendix A.

(f) Water mains that are cased shall conform to AWWA Standard C600-93, Section 6.

(g) Water mains constructed with non-metallic materials must be equipped with tracing wire or other metallic identification equipment. *(Water Pollution Control Board; 327 IAC 8-3.2-8)*

327 IAC 8-3.2-9 Separation of water mains from potential sources of contamination or damage

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 9. (a) Water mains shall not be located within ten (10) feet measured horizontally from the outside edge of the water main to the outside edge of any existing and proposed sanitary sewers or storm sewers (sewers), unless the water main and the sewers comply with the following:

(1) The water main and sewers must cross with the water main and sewers separated by a minimum of eighteen (18) inches measured vertically from the outside edge of the water main to the outside edge of the sewers.

(2) The crossing specified in subdivision (1) must be at a minimum angle of forty-five (45) degrees measured from the center lines of the water main and sewers.

(3) The conditions specified in subdivisions (1) and (2) must be maintained for a minimum distance of ten (10) feet from either side of the water main as measured from the outside edge of the water main to the outside edge of the sewers. All sewer pipe joints within this ten (10) feet distance must be compression type joints.

(4) All sewer pipe must be marked to identify it as a sewer pipe wherever a point of crossing with a water main pipe occurs.

(b) A shorter separation distance than that specified in subsection (a) is allowed if the following is conducted within the separation distances specified in subsection (a):

(1) The sewers are joined with compression type joints and meet all water main requirements as described in sections 8 and 17(a) of this rule.

(2) The water main and sewers are not in contact.

(c) Water mains shall be separated from existing and proposed above ground or underground storage tanks and their distribution devices containing or potentially containing hazardous materials**,**

petroleum products, or waste materials by a distance of twenty-five (25) feet horizontally measured from the outside edge of the water main to the outside edge of the tank or distribution device and shall not cross such tanks or distribution devices.

(d) Water mains shall be separated from the following existing and proposed potential sources of contamination or damage (sources) by ten (10) feet measured horizontally from the outside edge of the water main to the outside edge of the source and shall not cross such potential sources:

(1) Above ground and underground storage tanks containing materials other than those under subsection (b) or potable water.

(2) Sewage or septic treatment equipment and septic tank absorption field trenches, lift stations, and grave sites.

(e) No water main shall be within eight (8) feet of a sanitary sewer manhole, a storm sewer manhole, or a drainage grate support structure as measured from the outside edge of the water main to the outside edge of the sanitary sewer manhole, storm sewer manhole, or drainage grate support structure.

(f) Water mains shall be separated from existing or proposed landfills by fifty (50) feet measured horizontally from the edge of the water main to the outside edge of the waste boundary of an existing or proposed landfill. In addition, water mains within three hundred (300) linear feet of the outside edge of a waste boundary of an existing or proposed landfill shall be constructed of nonpermeable materials. Water mains shall not cross or pass through the waste boundary of an existing or proposed landfill. *(Water Pollution Control Board; 327 IAC 8-3.2-9)*

327 IAC 8-3.2-10 Water mains near surface water bodies

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 10. (a) Water mains shall be separated from existing or proposed water bodies by ten (10) feet horizontally measured from the outside edge of the water main to the edge of the typical water line.

(b) Water mains located above surface water bodies shall be:

(1) adequately supported and anchored;

(2) protected from damage and freezing; and

(3) accessible for repair or replacement.

(c) Water mains located under surface water bodies less than fifteen (15) feet in width shall be covered with a minimum of two (2) feet of material.

(d) Water mains going under surface water bodies greater than fifteen (15) feet in width at the crossing point shall:

(1) be constructed with watertight, flexible joints;

(2) have valves placed at both ends of the surface water body that are accessible from the ground surface and not subject to flooding; and

(3) have the upstream valve installed in a manhole structure or meter pit, with permanent taps made on each side of the valve in the manhole structure or meter pit to allow insertion of a

leakage meter and to allow for sampling purposes. *(Water Pollution Control Board; 327 IAC 8-3.2-10)*

327 IAC 8-3.2-11 Flowrate and pressure in the water main

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 11. (a) The flowrate and the pressure requirements of subsection (b) shall be provided at all service connections in a water main extension applicable to this rule.

(b) At a flowrate equal to the peak daily customer demand as determined in 327 IAC 8-3.3-2, the normal operating pressure in the water main shall not be less than twenty (20) psi under all conditions of flow at the ground level at all points in the water main when demonstrated in conformance with subsection (c).

(c) The flowrate and the pressure requirements of subsection (b) shall be demonstrated to the commissioner with either:

(1) a computer-based model; or

(2) other hydraulic calculations. *(Water Pollution Control Board; 327 IAC 8-3.2-11)*

327 IAC 8-3.2-12 Sizing of piping and accessories

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 12. (a) If the water main is to include fire flow with fire hydrants, the minimum size of piping and accessories supplying water to the water main and fire hydrants shall be six (6) inches in diameter. The minimum size of hydrant leads shall be six (6) inches in diameter.

(b) No water main shall be less than three (3) inches in diameter unless:

(1) the material requirements of section 8 of this rule are met;

(2) the water main is a dead-end main less than three hundred fifty (350) feet in length; and

(3) the flowrate and pressure requirements of section 11 of this rule are met.

(c) If a public water system is not providing fire flow, then fire hydrants shall not be installed on water mains. *(Water Pollution Control Board; 327 IAC 8-3.2-12)*

327 IAC 8-3.2-13 Use of dead-end mains

Authority:IC 13-13-5-1; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3-1; IC 13-18-4-1

Sec. 13. (a) All dead-end mains shall end with a valve and one (1) additional length of pipe beyond the valve that is properly plugged and capped.

(b) All dead-end main end points shall have flushing devices attached to the valve specified in subsection (a) that is sized to provide at least two and one-half (2.5) feet per second and a maximum of five (5) feet per second in the dead-end main during flushing. No flushing device may be connected directly to a sewer. A flushing device shall be selected in accordance with the following:

(1) The flushing device shall be a fire hydrant, flushing hydrant, or blow-off assembly if the diameter of the water main pipe is at least six (6) inches in diameter.

(2) The flushing device shall be a flushing hydrant or blow-off assembly if the diameter of the water main pipe is less than six (6) inches in diameter. *(Water Pollution Control Board; 327 IAC 8-3.2-13)*

327 IAC 8-3.2-14 Placement of isolation valves and air relief valves

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 14. (a) Isolation valves shall be provided on water mains in accordance with the following :

(1) Isolation valves shall be located at points necessary so that the maximum distance along the water main not served by an isolation valve shall be less than six hundred (600) linear feet.

(2) Where water suppliers serve widely scattered customers and where future development is not expected, the isolation valve spacing shall not exceed two thousand five hundred (2,500) linear feet.

(b) Air relief valves or other air relief devices shall be installed at any intermediate apex points in the water main where air may accumulate in the water main. All air relief valves must be equipped with an exhaust pipe extending to a downward facing elbow with a corrosion-resistant, twenty-four (24) mesh screened opening at an elevation of eighteen (18) inches above ground level. Automatic or manually operated air relief valves shall be selected in accordance with the following:

(1) Automatic air relief valves shall not be used in areas within the one hundred (100) year flood plain, in a pit, chamber or manhole where flooding may occur unless the automatic air relief valve is equipped with a downward facing exhaust pipe with a corrosion resistant, twenty-four (24) mesh screened opening at an elevation of eighteen (18) inches above the ground surface and above the one hundred (100) year flood elevation.

(2) Manually operated air relief valves shall be used in areas within the one hundred (100) year flood plain, in a pit, chamber, or manhole where flooding may occur. *(Water Pollution Control Board; 327 IAC 8-3.2-14)*

327 IAC 8-3.2-15 Fire and flushing hydrants

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 15. (a) All fire or flushing hydrant leads shall have auxiliary valves.

(b) Fire hydrant and flushing hydrant drains shall be separated from potential sources of contamination by ten (10) feet horizontally measured from the outside edge of the hydrant to the outside edge of the potential sources of contamination.

(c) Fire hydrants or flushing hydrants shall be located at points necessary so that the maximum distance along a water main not served by a fire hydrant or flushing hydrant shall be less than six hundred (600) linear feet.

(d) Fire hydrants shall be connected to a water main at least six (6) inches in diameter that has been designed to carry fire flow and shall have a bottom valve size at least five (5) inches in diameter, one (1) four and one-half (4.5) inch pumper nozzle, and two (2) two and one-half (2.5) inch nozzles.

(e) Hydrants, when used for flushing the water main, shall be able to provide at least two and one-half (2.5) cubic feet per second of water velocity at the point immediately preceding the exit point. *(Water Pollution Control Board; 327 IAC 8-3.2-15)*

327 IAC 8-3.2-16 Chamber drainage

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 16. The chambers, pits, or manholes containing valves, air relief valves, blow-offs, cross-connection prevention devices, meters, or other devices connected directly or indirectly to the water main shall not be connected directly to any storm drain or sanitary sewer. All chambers, pits, or manholes shall be drained to the ground surface that is not prone to flooding by surface water or to absorption pits underground. *(Water Pollution Control Board; 327 IAC 8-3.2-16)*

327 IAC 8-3.2-17 Installation

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 17. (a) All water mains and their accessories shall be installed and pressure and leak tested in accordance with the applicable provisions of AWWA standard C600-93, C602-89, C603-90, C605-94, or C606-87. If an AWWA standard is not available for the particular installation, the manufacturer's recommended installation procedure shall be followed.

(b) Continuous and uniform bedding shall be provided in the trench for all buried pipe. Backfill material shall be tamped in layers around the pipe and to a sufficient height above the pipe to adequately support and protect the pipe. All stones unable to pass through a U.S. Standard Sieve opening of two (2) inches that are found in the trench within six (6) inches of the outside edge of the pipe shall be removed.

(c) All necessary reaction blocking, tie rods, or joints designed to prevent movement for pipes and fittings (regardless of material type) at tees, bends, plugs, and hydrants shall be installed to

prevent movement in conformance with AWWA Standard C600-93, Section 3.8.

(d) Water mains shall be covered with earthen cover in accordance with the following:

Depth of Cover Requirements for Water Mains	
County	Cover[1] (in)
Adams	60
Allen	60
Bartholomew	48
Benton	60
Blackford	60
Boone	54
Brown	48
Carroll	60
Cass	60
Clark	36
Clay	54
Clinton	54
Crawford	36
Davies	48
Dearborn	48
Decatur	48
Dekalb	60
Delaware	60
Dubois	42
Elkhart	60
Fayette	54
Floyd	36
Fountain	60
Franklin	48
Fulton	60
Gibson	42
Grant	60
Greene	54
Hamilton	54
Hancock	54
Harrison	36
Hendricks	54
Henry	54

Howard	60
Huntington	60
Jackson	48
Jasper	60
Jay	60
Jefferson	42
Jennings	48
Johnson	54
Knox	48
Kosciusko	60
LaGrange	60
Lake	60
LaPorte	60
Lawrence	48
Madison	60
Marion	54
Marshall	60
Martin	48
Miami	60
Monroe	48
Montgomery	60
Morgan	48
Newton	60
Noble	60
Ohio	42
Orange	42
Owen	54
Parke	60
Perry	36
Pike	42
Porter	60
Posey	42
Pulaski	60
Putnam	54
Randolph	54
Ripley	48
Rush	54
St. Joseph	60
Scott	36

Shelby	54
Spencer	36
Starke	60
Steuben	60
Sullivan	54
Switzerland	42
Tippecanoe	60
Tipton	60
Union	48
Vanderburgh	36
Vermillion	60
Vigo	60
Wabash	60
Warren	60
Warrick	36
Washington	36
Wayne	54
Wells	60
White	60
Whitley	60
[1] The cover dimension is measured from the top of pipe to the proposed finish grade.	

(Water Pollution Control Board; 327 IAC 8-3.2-17)

327 IAC 8-3.2-18 Disinfection

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 18. (a) All new, cleaned, or repaired water mains shall be disinfected in accordance with AWWA Standard C651-92.

(b) All chlorinated water shall be disposed of by either:

(1) disposal to a sanitary sewer with the approval of the local sewer authority; or

(2) disposal to a location other than a sanitary sewer after obtaining a discharge permit from the commissioner.

(c) All laboratory reports documenting the conformance with AWWA Standard C651-92, Section 7, shall be submitted to the commissioner before the water main is brought into service. The laboratory used shall be approved by the commissioner. The laboratory report presenting the sample results shall be sent to the commissioner within ten (10) working days of receipt from the laboratory.

The laboratory results shall have the commissioner's assigned permit number marked on the upper right hand corner of the top page. *(Water Pollution Control Board; 327 IAC 8-3.2-18)*

327 IAC 8-3.2-19 Cross connection control

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 19. All service connections to facilities designated as a cross connection hazard by 327 IAC 8-10-4(c) shall be equipped with either a reduced pressure principle or an air gap backflow preventer according to 327 IAC 8-10-7. *(Water Pollution Control Board; 327 IAC 8-3.2-19)*

327 IAC 8-3.2-20 Technical standard alternative demonstration

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 20. (a) An alterative to technical standards required by this rule may be approved by the commissioner for either a single application or for public water system-wide applications of the technical standard if the applicant demonstrates in a written submission that the alternative will achieve the following:

(1) Meet the issuance requirements of 327 IAC 8-3-4.

(2) Provide drinking water of at least the same satisfactory quality and normal operating pressure at the peak operating flowrate as the technical standards of this rule would provide.

(b) An approved alternative to a technical standard shall be in effect for one (1) year from the commissioner's approval of that alternative standard.

(c) An alternative to a technical standard shall only apply to the application or the public water system for which the alternative is requested. *(Water Pollution Control Board; 327 IAC 8-3.2-20)*

SECTION 16. 327 IAC 8-3.3 IS ADDED TO READ AS FOLLOWS:

Rule 3.3. Public Water System Quantity Requirement Standards

327 IAC 8-3.3-1 Definitions

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2; IC 16-41-26-1; IC 16-41-26-8

Sec. 1. In addition to definitions contained in IC 13-11-2, 327 IAC 8-1-1, and 327 IAC 8-3-1, the following definitions apply throughout this rule:

(1) "Agricultural labor camp" means an area as described in IC 16-41-26-1.

(2) “Primary pumps” means any pumps used to deliver drinking water to the distribution

system. Primary pumps are the high service pumps in a staged treatment system. Primary pumps are the well pumps in a public water system that utilizes no treatment.

(3) "Rated capacity" means the optimum flowrate output for the intended use from a device as determined by the manufacture of the device. *(Water Pollution Control Board; 327 IAC 8-3.3-1)*

327 IAC 8-3.3-2 Calculation of public water system quantity requirement standards for average and peak demand conditions

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 2. (a) The calculated average and peak flowrate values required for a water main extension to a public water system shall be equal to the average and peak daily consumer demands of the proposed additional service connections calculated as follows:

(1) The public water supply quantity requirement for the average daily consumer demand for residential service connections shall be determined by using a general average daily demand value. The following method shall be used to calculate average and peak supply quantity requirements:

ADCD = (General Avg) × PRSC

PDCD = (ADCD × PF) + FF

Where:

ADCD = Average daily consumer demand in gallons per residential service connection per day.

PDCD = Peak daily consumer demand in gallons per residential service connection per day.

General Avg = General average daily consumer demand value of five hundred (500) gallons per residential service connection per day.

PRSC = Proposed number of residential service connections.

PF = Peak daily consumer demand factor of 2.5.

FF = Fire flow demand value equal to the fire protection flowrate provided by the public water system or zero if the public water system is not providing fire protection.

(2) The public water supply quantity requirement for the average and peak daily consumer demand for residential service connections may be determined from the monthly reports of operations (MROs) as follows:

(A) The following method may be used to calculate average and peak supply quantity requirements for a public water system that has been in operation for at least ten (10) years and has an accurate record of MROs for that time period:

ADCD = (Max Average) × PRSC

PDCD = (ADCD × PF) + FF

Where: ADCD = Average daily consumer demand in gallons per residential service connection per day.

PDCD = Peak daily consumer demand in gallons per residential service connection per day.

Max Average = Maximum average daily consumer demand in gallons per service connection as calculated by:

Max Average = (ADCD10) ÷ (SC10)

Where: ADCD10 = The highest average daily demand as reported on the MROs over the previous ten (10) year period.

SC10 = The number of service connections at ADCD10.

PRSC = Proposed number of residential service connections.

PF = Peak daily demand factor as calculated by the following:

PF = MDD10 ÷ 10YADD

Where: MDD10 = The maximum single day demand as reported on the MROs over the previous ten (10) year period.

10YADD = The ten (10) year average daily demand as calculated from the previous ten (10) year period.

FF = Fire flow demand value equal to the fire protection flowrate provided by the public water system or zero if the public water system is not providing fire protection.

(B) If a public water service has not been in operation for at least ten (10) years, then all available MROs shall be used to determine the highest average daily demand (ADCD10), the number of service connections at ADCD10 (SC10), the maximum single day demand (MDD10), and the ten (10) year average daily demand (10YADD).

(3) The public water supply quantity requirement for the average and peak daily consumer demand for service connections described by Table 2-1 in subsection (b). The following method may be used to calculate the average and peak public water supply quantity requirements:

ADCD = DCF × PSC

PDCD = (ADCD × PF) + FF

Where: ADCD = Average daily consumer demand in gallons per service connection per day.

PDCD = Peak daily consumer demand in gallons per service connection per day.

DCF = Demand calculation factors as contained in Table 2-1 in subsection (b).

PSC = Proposed number of service connections.

PF = Peak daily consumer demand factor of 2.5.

FF = Fire flow demand value equal to the fire protection flowrate provided by the public water system or zero if the public water system is not

providing fire protection.

(4) If the average and peak daily consumer demand cannot be determined or calculated using the methods described in subdivision (1), (2), or (3), the determination of the average and peak daily consumer demand must be approved by the commissioner. The source and any calculations or assumptions must be approved by the commissioner.

(b) The following demand calculation factors shall be used in the calculations under subsection(a)(3):

Table 2-1
Demand Calculation Factors (DCF)

Service Connection Description	DCF (gallons per day)
Airport	3 per passenger plus 20 per employee
Assembly Hall	3 per seat
Bar (without food service)	10 per seat
Beauty Salon	35 per customer
Bowling Alley (with bar and/or food)	125 per lane
Bowling Alley (without food service)	75 per lane
Bus Station	3 per passenger
Campground Organizational with flush toilets	40 per camper
Campground Organizational without flush toilets	**20 per camper**
Campground Recreational with individual sewer connection	100 per campsite
Campground Recreational without individual sewer connection	50 per campsite
Church with kitchen	5 per sanctuary seat
Church without kitchen	3 per sanctuary seat
Correctional Facilities	120 per inmate
Day Care Center	20 per person
Dentist	750 per chair plus 75 per employee
Factory with showers	35 per employee
Factory without showers	20 per employee
Food Service Operations Cocktail Lounge	35 per seat

Food Service Operations Restaurant, not open 24 hours	**35 per seat**
Food Service Operations Restaurant, open 24 hours	**50 per seat**
Food Service Operations Restaurant, open 24 hours and located along an Interstate	**70 per seat**
Food Service Operations Tavern	**35 per seat**
Food Service Operations Curb Service (drive-in)	**50 per car space**
Hospital, medical facility	200 per bed
Hotel	100 per room
Kennel	20 per animal enclosure
Mental Health Facility	100 per patient
Motel	100 per room
Nursing Home	100 per bed
Office Building	20 per employee
Outpatient Surgical Center	50 per patient
Picnic Area	5 per visitor
School Elementary	15 per pupil
School Secondary	25 per pupil
School with Dormitory	100 per bed
Service Station (Gas Station)	400 per restroom
Shopping Center	0.1 per square foot of floor space, plus 20 per employee
Swimming Pool Bathhouse	10 per swimmer
Theater Drive-In	5 per car space
Theater Inside Building	5 per seat

(Water Pollution Control Board; 327 IAC 8-3.3-2)

327 IAC 8-3.3-3 Determination of public water system capacity

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 3. (a) A public water system's daily capacity shall be determined by adding together the production capacity determined under subsection (b) and the purchased capacity, if any, determined under subsection (c).

(b) The production capacity is the lesser of the following amounts:

(1) The "design daily production" in gallons per day as reported on the most recent Public Water System Sanitary Survey conducted by the commissioner pursuant to 327 IAC 8-2-8.2.

(2) The sum of the rated daily capacity of all primary pumps utilized by a public water supplier less the primary pump with the largest rated capacity. For example, a public water system with a five hundred (500) gallons per minute pump and a four hundred (400) gallons per minute pump would have a system capacity of four hundred (400) gallons per minute.

(c) A public water system that supplements its own capacity by purchasing water may add the amount of the purchase capacity to the public water system daily capacity. The purchase capacity is one of the following amounts:

(1) The contractual amount, expressed as a daily quantity, of water purchase from a separate public water system.

(2) The commissioner's approved amount, expressed as a daily quantity, of water purchase from a separate public water system. The commissioner's approval of the purchase capacity is required when:

(AA) no purchase water contract exists; or

(BB) no finite daily quantity of water is specified in the purchase water contract. *(Water Pollution Control Board; 327 IAC 8-3.3-3)*

327 IAC 8-3.3-4 Additional public water system quantity requirement standards for schools buildings and related facilities

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 4. (a) All school buildings and related facilities shall be supplied with safe, potable water from an approved source and an approved distribution system.

(b) The drinking water for school buildings and related facilities shall be supplied at the flowrate and pressure required by 327 IAC 8-3.2-11 and at the quality required by 327 IAC 8-2 and in accordance with the following:

(1) The water supply and distribution system shall be sized and constructed to deliver water at twenty (20) pounds per square inch minimum pressure to all fixtures and appurtenances during periods of peak water demand.

(2) Notwithstanding subdivision (1), school buildings may be served by hand- operated well pumps where religious custom precludes using electrically or gasoline driver well pumps providing the well and well pump are located and constructed in compliance with this rule and applicable sections of 410 IAC 6-5.1.

(c) A connection to a public water supply shall be made with its potable water used exclusively wherever such supply is available or becomes available within a reasonable distance from

the school facility, with the exception that nonpotable sources of water are available and may be utilized for the following nonpotable activities:

(1) Lawn sprinkling.

(2) Bus washing.

(3) Fire fighting.

(4) Other nonpotable uses provided by a nonpotable distribution system having no connection to the potable system.

(d) Where a community public water supply is not available, a properly located and constructed private water supply shall be provided. Beginning on the effective date of this rule, all new and modified public water systems exclusively serving schools and related facilities shall be equipped with a backup system capable of providing drinking water in accordance with subsection (b).

(e) Well pumps, pressure tanks, storage tanks, treatment facilities, and piping shall be sized to meet peak daily consumer demands. The minimum usable capacity of the pressure tank, in gallons, shall be three (3) times the installed well pump capacity in gallons per minute. For example, a pump of thirty (30) gallons per minute capacity would require a pressure tank of ninety (90) gallons usable capacity. If the well or pump cannot meet peak demands, sufficient additional usable storage capacity shall be provided to meet peak demands.

(f) Each school building or addition to a school building may have a potable water supply where necessary to provide adequate service. However, where two (2) or more school potable water supply systems are located on the same site, the water supply systems shall be sufficiently interconnected to allow for the maximum possible utilization of each should a system fail.

(g) Unless lower water system demands can be documented to the satisfaction of the commissioner, all school buildings and additions to school buildings constructed after February 17, 1985, shall have a water supply system capable of furnishing a minimum of:

(1) fifteen (15) gallons per day per student up through the elementary grades;

(2) twenty-five (25) gallons per day per student in grades greater than elementary; and

(3) one hundred (100) gallons per day per dormitory bed based on maximum building occupancy. *(Water Pollution Control Board; 327 IAC 8-3.3-4)*

327 IAC 8-3.3-5 Additional public water system quantity requirement standards for mobile home parks

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 5. (a) An accessible, adequate, safe, and potable supply of water shall be provided in all mobile home parks and additions.

(b) Where a public water supply is available, a connection shall be made thereto and its water used exclusively.

(c) A water-tight casing pipe extending at least twelve (12) inches above the ground shall surround any part of a suction pipe, drop pipe, or delivery pipe not normally under constant pressure

and located within twenty-five (25) feet of the ground surface.

(d) Each mobile home lot shall be provided with a cold water tap extending at least four (4) inches above the ground surface. The outlet shall be protected from freezing by the use of a heater tape, insulation, or draining when not in use. In no case shall a stop-and-waste valve or other device that would allow aspiration or backflow or contaminated water into the potable water system be used.

(e) The individual water and sewer connections on each mobile home lot shall be separated not less than five (5) feet horizontally.

(f) The water supply system shall be capable of furnishing a minimum of two hundred (200) gallons per day per mobile home lot in all mobile home parks constructed after June 14, 1974, as well as in all additions to mobile home parks constructed after the date. *(Water Pollution Control Board; 327 IAC 8-3.3-5)*

327 IAC 8-3.3-6 Additional public water system quantity requirement standards for agricultural labor camps

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1; IC 16-41-26-8

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 6. (a) An adequate and convenient supply of water that meets the water quality standards of the department pursuant to 327 IAC 2 shall be available at all times in each agricultural labor camp for culinary, drinking, bathing and laundry purposes. Where a public water supply is available, it shall be used to provide water for the agricultural labor camp.

(b) A cold water tap shall be available within one hundred (100) feet of each individual living unit when water is not provided in the unit. Adequate drainage facilities shall be provided for overflow and spillage. *(Water Pollution Control Board; 327 IAC 8-3.3-6)*

SECTION 17. 327 IAC 8-7-1 IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-7-1 School water supply and distribution systems

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1; IC 16-1-24-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 1.(a) The minimum distances between wells and buried pump suction lines and from sources of contamination shall be in accordance with the following:

(1) Except as provided in subdivision (2), the following table of separation distances is applicable:

Sewers and drains	100 feet, except that sewers and drains of cast or ductile iron water works grade pipe having mechanical joints may be located closer than 100 feet, but shall be located no closer than 30 feet from wells and buried pump suction lines

Septic tanks, absorption fields, wastewater treatment facilities, privies	100 feet
Streams, lakes, ponds, ditches	25 feet
Property lines	100 feet

(2) The separation distances may be increased by the commissioner to conform to 327 IAC 8-3-4(1).

(b) Wells shall be tested for stabilized yield and drawdown by high-capacity pumping (initially at one hundred fifty percent (150%) or more of the design pumping rate) for at least twenty-four (24) hours, and the results submitted to the commissioner for review along with the final plans for any school facility improvement.

(c) Water supplies shall have no well head, well casing, pump, pumping machinery, or exposed pressure tanks or suction piping located in any pit, room, or space that is walled in or otherwise enclosed so that it does not have free drainage by gravity to the surface of the ground at all times.

(d) All water supply wells shall be cased, and the annular space properly sealed, to a depth of at least twenty-five (25) feet below finished grade. The casing pipe of any well shall project not less than twenty-four (24) inches above floor level, finished grade, or the highest flood level of record, whichever is greater. No casing shall be cut off below finished grade except to install a pitless adapter.

(e) Wells shall be disinfected after construction and after each repair. Before releasing the potable system for use, the water shall be tested and shown to be bacteriologically acceptable in at least two (2) consecutive samples collected twenty-four (24) hours apart. *(Water Pollution Control Board; 327 IAC 8-7-1; filed Sep 24, 1987, 3:00 p.m.: 11 IR 712)*

SECTION 18. 327 IAC 8-8-1 IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-8-1 Mobile home park water supply and distribution systems

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 1.(a) Water supply wells shall not be located in an area subject to flooding.

(b) The minimum distances between wells and buried pump suction lines and from sources of contamination shall be in accordance with the following table of separation distances:

(1) Except as provided in subdivision (2), the following table of separation distances is applicable:

Sewers, drains, and appurtenances	100 feet
Sewers and drains of water works grade pipe having mechanical or push-type joints	30 feet
Sewage treatment and disposal devices	100 feet

Streams, lakes, ponds, ditches	50 feet
Property lines	25 feet

(2) The separation distances may be increased by the commissioner to conform to 327 IAC 8-3-4(1).

(c) Water supplies shall have no well head, well casing, pump, pumping machinery, valve connected with the suction pump, or exposed suction pipe located in:

(1) any pit, room, or space extending below ground level; or

(2) any room or space above the ground that is walled in or otherwise enclosed so that it does not have free drainage to the surface of the ground.

(d) Wells shall be disinfected after construction or repair in conformance with AWWA Standard A100-90 Water Wells, Section 11. *(Water Pollution Control Board; 327 IAC 8-8-1; filed Sep 24, 1987, 3:00 p.m.: 11 IR 713)*

SECTION 19. 327 IAC 8-8-2 IS ADDED TO READ AS FOLLOWS:

327 IAC 8-8-2 Incorporation by reference

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 2. The American Water Works Association (AWWA) Standards are incorporated by reference into this rule and may be obtained from the American Water Works Association, 6666 West Quincy Avenue, Denver, Colorado 80235 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. Notwithstanding language to the contrary in the primarily incorporated documents, the version of all secondarily incorporated documents, which are those documents referred to in the primarily incorporated documents, shall be the version in effect on the date of final adoption of this rule. *(Water Pollution Control Board; 327 IAC 8-8-2)*

SECTION 20. 327 IAC 8-9-1 IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-9-1 Agricultural labor camps water supply

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 1. When wells are used as the source of the agricultural labor camp water supply, they shall be in full compliance with the provisions of the Indiana state department of health Bulletin SE 13,"On-Site Water Supply and Wastewater Disposal for Public and Commercial Establishments", 1988. *(Water Pollution Control Board; 327 IAC 8-9-1; filed Sep 24, 1987, 3:00 p.m.: 11 IR 714)*

SECTION 21. 327 IAC 8-9-2 IS ADDED TO READ AS FOLLOWS:

327 IAC 8-9-2 Incorporation by reference

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 2. Bulletin SE 13, "On-Site Water Supply and Wastewater Disposal for Public and Commercial Establishments", Indiana State Board of Health, 1988, is incorporated by reference into this rule and may be obtained from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206. *(Water Pollution Control Board; 327 IAC 8-9-2)*

SECTION 22. 327 IAC 8-10-1 IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-10-1 Definitions

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 1. In addition to the definitions contained in IC 13-11-2 and ~~in~~ 327 IAC 1, the following definitions apply throughout this rule:

(1) "Air gap" means an unobstructed vertical distance through atmosphere between the discharge end of a pipeline supplied from a public water supply, and the overflow rim of the receiving portion of the customer water system.

(2) "Backflow" means the flow of water or contaminants into the public water supply distribution system from a source other than the public water supply.

(3) "Booster pump" means a pump installed on a pipeline to increase water pressure ~~and~~ or flow.

(4) "Commissioner" means the commissioner of the Indiana department of environmental management, or his or her authorized representative.

(5) "Cross connection" means any physical arrangement, including cross connection control devices not in working order, whereby a public water supply distribution system is directly connected, either continuously or intermittently, with any secondary source of supply, sewer, drain, conduit, pool, piping, storage reservoir, plumbing fixture, or other device which contains, or may contain, and is capable of imparting to the public water supply, contaminants, contaminated water, sewage, or other waste or liquid of unknown or unsafe quality.

(6) "Cross connection control device" means any device or assembly, approved by the commissioner for construction on or installation in water supply piping, which is capable of preventing contaminants from entering the public water supply distribution system.

(7) "Cross connection control device inspector" means a person who has successfully completed training in testing and inspection of cross connection control devices from a

training provider approved by the commissioner, has received a registration number from the commissioner, and who has not been notified by the commissioner that the registration number has been revoked in accordance with section 11(b) of this rule.

(8) "Cross connection hazard" means any customer facility which, because of the nature and extent of activities on the premises or the materials used in connection with the activities or stored on the premises, would present an immediate or potential danger or health hazard to customers of the public water supply should backflow occur.

(9) "Customer" means any person who receives water from a public water supply.

(10) "Customer service line" means the pipeline from the public water supply to the first tap, fixture, receptacle, or other point of customer water use; or to the first secondary source of supply, or pipeline branch in a building.

(11) "Customer water system" means all piping, fixtures, and appurtenances, including secondary sources of supply, used by a customer to convey water on his premises.

(12) "Double check valve assembly" means a device or assembly composed of two (2) tightly closing shut-off valves surrounding two (2) independently acting check valves, with four (4) test cocks, one (1) upstream of the four (4) valves and one (1) between each of the four (4) check and shut-off valves.

(13) "Downstream" means the direction of flow when only the public water supply is supplying water through the customer water system and backflow is not occurring.

(14) "Pressure vacuum breaker" means a device or assembly containing an independently operating internally loaded check valve and an independently operating loaded air inlet valve located on the downstream side of the check valve for relieving a vacuum or partial vacuum in a pipeline.

(15) “Public water system” means any wells, reservoirs, lakes, rivers, sources of supply, pumps, mains, pipes, facilities, and structures through which water is obtained, treated as may be required, and supplied through a water distribution system to at least twenty-five (25) persons per day or fifteen (15) service connections for drinking, domestic, or other purposes, including state-owned facilities.

(16) "Reduced pressure principle backflow preventer" means a device composed of two (2) tightly closing shut-off valves surrounding two (2) independently acting pressure reducing check valves that, in turn, surround an automatic pressure differential relief valve, and four (4) test cocks, one (1) upstream of the five (5) valves and one (1) between each of the four (4) check and shut-off valves. The check valves effectively divide the structure into three (3) chambers; pressure is reduced in each downstream chamber allowing the pressure differential relief valve to vent the center chamber to atmosphere should either or both check valves malfunction.

(17) “Registration number” means a unique number assigned to a person by the commissioner demonstrating that the person has fulfilled the education and examination requirements as described in section 11 of this rule and is recognized by the state as a cross connection control device inspector.

(18) "Secondary source of supply" means any well, spring, cistern, lake, stream, or other water source, intake structure, pumps, piping, treatment units, tanks, and appurtenances used,

either continuously or intermittently, to supply water other than from the public water supply to the customer, including tanks used to store water to be used only for fire fighting, even though the water contained therein is supplied from the public water supply.

(19) "Supplier of water" means any person who owns or operates a public water supply.

(20) “Training provider” means an organization who conducts or presents a cross connection control device inspector course approved by the commissioner in conformance with section 12 of this rule.

(21) "Upstream" means the direction of flow opposite to downstream. *(Water Pollution Control Board; 327 IAC 8-10-1; filed Sep 24, 1987, 3:00 p.m.: 11 IR 714)*

SECTION 23. 327 IAC 8-10-3 IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-10-3 Booster pump connection

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 3. No customer shall cause or allow the installation or maintenance of a booster pump in a public water system unless a device is installed to control operation of the booster pump when pressure to pump suction drops as follows:

(1) Wherever a fire suppression system has a booster pump installed only for fire suppression, it shall have an audible or visual alarm to provide warning when flow occurs and a control valve shall be installed on the booster pump discharge to automatically throttle the flow as necessary to maintain a minimum of ten (10) pounds per square inch, gauge, pump suction pressure.

(2) For all booster pumps other than those described in subdivision (1), a control device shall be installed to either prevent operation of the booster pump, or else to automatically throttle flow to or from the booster pump as necessary to maintain a minimum of twenty (20) pounds per square inch, gauge, pump suction pressure. The supplier of water may require that the control device be calibrated to maintain a higher than twenty (20) pounds per square inch, gauge, pump suction pressure, where necessary to provide a minimum pressure of twenty (20) pounds per square inch, gauge, throughout the pressure zone of the public water system distribution system to which the customer is connected. *(Water Pollution Control Board; 327 IAC 8-10-3; filed Sep 24, 1987, 3:00 p.m.: 11 IR 715)*

SECTION 24. 327 IAC 8-10-4 IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-10-4 Cross connection hazards; notice; exemptions

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 4. (a) Wherever a cross connection hazard as specified by subsection (c) is designated:

(1) an air gap shall be constructed or a reduced pressure principle backflow preventer shall be installed, in accordance with section 7 of this rule, on the customer service line for:

(A) any new facility;

(B) any modified customer service line; or

(C) any existing facility where a higher capacity meter is installed; and

(2) neither an air gap nor a reduced pressure principle backflow preventer shall be required to be incorporated into customer service lines that both are utilized solely for fire suppression and are fitted with an audible alarm that will activate when water is detected to be flowing in the customer service line.

(b) Customers who have a cross connection that has resulted in a contaminant being introduced into a public water system or a customer water system:

(1) shall immediately construct an air gap or install a reduced pressure principle backflow preventer on the customer service line in accordance with section 7 of this rule; or

(2) is exempt from the requirements of subdivision (1) because the affected customer service line is both utilized solely for fire suppression and is fitted with an audible alarm that will activate when water is detected to be flowing in the line.

(c) The following customer facilities are designated cross connection hazards:

(1) Aircraft and missile manufacturing plants.

(2) Automotive plants, including those plants that manufacture motorcycles, automobiles, trucks, recreational vehicles, and construction and agricultural equipment.

(3) Beverage bottling plants, including dairies and breweries.

(4) Canneries, packing houses, and reduction plants.

(5) Car washes.

(6) Chemical, biological, and radiological laboratories, including those in high schools, trade schools, colleges, universities, and research institutions.

(7) Hospitals, clinics, medical buildings, autopsy facilities, morgues, other medical facilities, and mortuaries.

(8) Metal and plastic manufacturing, fabricating, cleaning, plating, and processing facilities.

(9) Plants manufacturing paper and paper products.

(10) Plants manufacturing, refining, compounding, or processing fertilizer, film, herbicides, natural or synthetic rubber, pesticides, petroleum or petroleum products, pharmaceuticals, radiological materials, or any chemical that could be a contaminant to the public water supply.

(11) Commercial facilities that use herbicides, pesticides, fertilizers, or any chemical that could be a contaminant to the public water supply.

(12) Plants processing, blending, or refining animal, vegetable, or mineral oils.

(13) Commercial laundries and dye works, excluding coin-operated laundromats.

(14) Sewage, storm water, and industrial waste treatment plants and pumping stations.

(15) Waterfront facilities, including piers, docks, marinas, and shipyards.

(16) Industrial facilities that recycle water.

(17) Restricted or classified facilities (federal government defense or military installations), or other facilities closed to the supplier of water or to the commissioner.

(d) Customer facilities not designated as a cross connection hazard by subsection (c) may be designated a cross connection hazard by written notification from the commissioner to the customer and to the customer's public water system. The notice shall specify the nature of the customer activity that necessitates designation of ~~his~~ the customer's facility as a cross connection hazard, and the date by which the customer shall install a cross connection control device in accordance section 7 of this rule, on the customer service line to the facility so designated.

(e) The commissioner may issue a letter exempting a customer from the requirements of subsection (a) if the customer can show to the satisfaction of the commissioner that the activities taking place at ~~his~~ the customer's facility, and the materials used in connection with these activities or stored on the premises, cannot endanger the health of customers of the public water system should backflow occur. An exemption shall remain valid for no more than three (3) years from the date of issuance. If the commissioner finds that the customer facility has become a cross connection hazard, the commissioner will void the exemption and so notify the customer. *(Water Pollution Control Board; 327 IAC 8-10-4; filed Sep 24, 1987, 3:00 p.m.: 11 IR 716)*

SECTION 25. 327 IAC 8-10-5 IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-10-5 Secondary sources of supply; installation of air gaps or other devices

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 5. (a) Customers shall construct an air gap or install a reduced pressure principle backflow preventer or a double check valve assembly in accordance with section 7 of this rule, on the customer service line to:

(1) tanks used only to store water from the public water supply for fire suppression that are constructed to maintain the bacteriological quality of the water, in compliance with 327 IAC 8-2; or

(2) secondary sources of supply that:

(A) use well water as the only private source of supply;

(B) are constructed to maintain the bacteriological quality of the water, in compliance with 327 IAC 8-2; and

(C) produce, without treatment, water meeting the drinking water quality standards enumerated in 327 IAC 8-2.

(b) Customers shall construct an air gap or install a reduced pressure principle backflow preventer in accordance with section 7 of this rule on the customer service line to or into a facility having a secondary source of supply of a type other than those enumerated in subsection (a), that is used only for fire suppression.

(c) No secondary source of supply of a type other than those enumerated in subsections (a) and (b) shall be physically connected on the customer service line to or into the facility. *(Water Pollution Control Board; 327 IAC 8-10-5; filed Sep 24, 1987, 3:00 p.m.: 11 IR 716)*

SECTION 26. 327 IAC 8-10-6 IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-10-6 Land irrigation facility buried below ground; installation of air gaps or other devices

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 6. Customers shall construct an air gap, or install a reduced pressure principle backflow preventer or pressure type vacuum breaker in accordance with section 7 of this rule, on the water line connecting the public water supply to any land irrigation facility buried below ground that has a sprinkler outlet located less than six (6) inches above grade and is constructed after July 19, 1985. *(Water Pollution Control Board; 327 IAC 8-10-6; filed Sep 24, 1987, 3:00 p.m.: 11 IR 717)*

SECTION 27. 327 IAC 8-10-7 IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-10-7 Construction and installation requirements for air gaps or other devices

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2; IC 22-13-2

Sec. 7. (a) The discharge pipe of an air gap shall terminate:

(1) a minimum of two (2) pipe diameters of the discharge pipe or six (6) inches, whichever is the lesser, above the maximum recorded flood level or above the flood level rim of the receiving vessel, whichever is higher; or

(2) a minimum of three (3) pipe diameters of the discharge pipe or six (6) inches, whichever is the lesser, above the maximum recorded flood level or above the flood level rim of the receiving vessel, whichever is higher where:

(A) a side wall, rib, or similar obstruction is spaced closer than three (3) diameters from the piping affecting the air gap; or

(B) two (2) intersecting walls are located closer than four (4) pipe diameters from the piping affecting the air gap.

(b) Only those models of double check valve assemblies, reduced pressure principle backflow preventers, and pressure vacuum breakers that have been listed by the Foundation for Cross Connection Control and Hydraulic Research of the University of Southern California, August, 27, 1997, or those acceptable under the Indiana plumbing code pursuant to the Fire Prevention and Building Safety Commission rules at 675 IAC 16-1.2, shall be installed.

(c) Reduced pressure principle backflow preventers shall be installed horizontally, with:

(1) no plug or additional piping affixed to the pressure differential relief valve port; and

(2) the pressure differential relief valve port a minimum of twelve (12) inches above floor level.

Additionally, the device must be installed at a location where any leakage from the pressure differential relief valve port will be noticed, and that allows access to the valve for maintenance and

testing from floor level, without use of a ladder or other similar temporary apparatus, and that will not subject the device to flooding, excessive heat, or freezing.

(d) All double check valve assemblies shall be installed at a location that allows access to the device for maintenance and testing from floor level, without use of a ladder or other similar temporary apparatus, and that will not subject the device to flooding, excessive heat, or freezing.

(e) Pressure vacuum breakers shall be installed as near as possible to the irrigation facility, at a location that allows access to the device for maintenance and testing from floor or ground level, without use of a ladder or other similar temporary apparatus, and that will not subject the device to flooding, excessive heat, or freezing. Additionally, the device must be installed between two (2) tightly closing shut-off valves, with its center line or datum point a minimum of twelve (12) inches above:

(1) floor level;

(2) the highest downstream piping or shut-off valve; and

(3) the highest downstream overflow rim or discharge point. *(Water Pollution Control Board; 327 IAC 8-10-7; filed Sep 24, 1987, 3:00 p.m.: 11 IR 717)*

SECTION 28. 327 IAC 8-10-8 IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-10-8 Inspection of devices; time limits

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 8. (a) The customer shall install and maintain in working order at all times any cross connection control device or booster pump control device required by this rule.

(b) To ensure that each cross connection control device required by this rule is in working order, the customer shall have each device inspected or tested by a cross connection control device inspector at the time of construction or installation, and at the following intervals, in the following manner:

(1) Air gaps shall be inspected at intervals not exceeding one (1) year to ensure that they continue to meet the requirements of section 7 of this rule.

(2) Reduced pressure principle backflow preventers shall be tested at intervals not exceeding six (6) months to ensure that:

(A) both check valves are drip-tight under all pressure differentials; and

(B) the pressure differential relief valve will maintain pressure in the center chamber at least two (2) pounds per square inch below that of the inlet chamber.

(3) Double check valve assemblies shall be tested at intervals not exceeding one (1) year to ensure that both check valves are drip-tight under all pressure differentials.

(4) Pressure vacuum breakers shall be tested at intervals not exceeding one (1) year to ensure that the air inlet opens fully when water pressure is at or below atmospheric.

(c) The customer shall permit access to the customer's premises by the inspector, the customer's public water system, or the commissioner, at reasonable times, and upon presentation of

identification, for inspection of the customer water system or testing of cross connection control devices installed in accordance with this rule.

(d) Those customers granted an exemption in accordance with section 4(e) of this rule shall report to the commissioner and to the supplier of water any proposed change in process, plumbing, or ~~in~~ materials used or stored at the exempted facility at least fourteen (14) days prior to making the change. Failure to do so shall void the exemption. *(Water Pollution Control Board; 327 IAC 8-10-8; filed Sep 24, 1987, 3:00 p.m.: 11 IR 717)*

SECTION 29. 327 IAC 8-10-9 IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-10-9 Inspectors; reports of inspection or test

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-16-1 IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 9. (a) All cross connection control device inspectors shall:

(1) be registered with the commissioner in accordance with section 11 of this rule; and

(2) shall submit reports of all inspections as required by subsection (b).

(b) The inspector shall report to the public water system, the customer and, if requested, the commissioner, on a form provided by the commissioner, the results of inspections or tests conducted pursuant to section 8(b) of this rule on air gaps, reduced pressure principle back-flow preventers, double check valve assemblies, and pressure vacuum breakers. Reports shall be submitted to the public water system and to the customer within thirty (30) days of the inspection or test. *(Water Pollution Control Board; 327 IAC 8-10-9; filed Sep 24, 1987, 3:00 p.m.: 11 IR 718)*

SECTION 30. 327 IAC 8-10-10 IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-10-10 Noncompliance; retention of reports; access

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 10. (a) Because cross connections may cause disease through transmission of contaminants via the public water system, the commissioner shall order the public water system to remove the customer service meter or otherwise sever the public water system connection to any customer which the commissioner finds or has reason to believe is in violation of any provision of this rule.

(b) The supplier of water shall retain the three (3) most recent reports of tests conducted on air gaps, reduced pressure principle backflow preventers, double check valve assemblies, and pressure vacuum breakers installed in accordance with this rule. The supplier of water shall permit access to these files at reasonable times and upon presentation of identification by the commissioner.

(c) If so requested, the public water system shall submit to the commissioner copies of any

report required to be retained by subsection (b). *(Water Pollution Control Board; 327 IAC 8-10-10; filed Sep 24, 1987, 3:00 p.m.: 11 IR 718)*

SECTION 31. 327 IAC 8-10-11 IS AMENDED TO READ AS FOLLOWS:

327 IAC 8-10-11 Registration of inspectors; list of registered inspectors; list of approved devices

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 4-21.5; IC 13-11-2; IC 13-13-5-1; IC 13-18-2; IC 13-18-11-8

Sec. 11. (a) Upon reviewing and finding the information certified by the training provider acceptable, the commissioner shall issue a registration number to each person whose training provider has certified that the applicant has met the following requirements of education and examination:

(1) The information supplied by the applicant must be reviewed and acceptable to the training provider.

(2) Each applicant must attend forty (40) hours of education and successfully complete a written and oral examination for cross connection device inspectors administered by a training provider.

(b) The commissioner may revoke the registration of any cross connection control inspector, following a hearing pursuant to IC 4-21.5, when it is found that the inspector has violated any of the provisions set out in this rule or IC 13-18-11-8.

(c) The commissioner shall maintain a list entitled "Indiana Registered Cross Connection Control Device Inspectors, All Inspectors", that is comprised of cross connection control device inspectors registered in Indiana.

(d) The commissioner shall maintain a list entitled "Indiana Registered Cross Connection Control Device Inspectors, Active Inspectors", that is comprised of cross connection control device inspectors that are registered in Indiana in accordance with subsection (a) and who have requested their inclusion on this list in writing to the commissioner during the previous two (2) years.

(e) The commissioner shall maintain a list entitled "List of Approved Backflow Prevention Assemblies, August 27, 1997, Foundation for Cross Connection Control and Hydraulic Research, University of Southern California" that is comprised of a listing of cross connection control devices from the Foundation for Cross Connection Control and Hydraulic Research of the University of Southern California.

(f) The commissioner shall make the following lists as described in this section available to the public upon request:

(1) Indiana Registered Cross Connection Control Device Inspectors, All Inspectors.

(2) Indiana Registered Cross Connection Control Device Inspectors, Active Inspectors.

(3) List of Approved Backflow Prevention Assemblies, August 27, 1997, Foundation for Cross Connection Control and Hydraulic Research, University of Southern California.

(Water Pollution Control Board; 327 IAC 8-10-11; filed Sep 24, 1987, 3:00 p.m.: 11 IR 718)

SECTION 32. 327 IAC 8-10-12 IS ADDED TO READ AS FOLLOWS:

327 IAC 8-10-12 Approval of an organization as a training provider of cross connection control device inspectors; record keeping

Authority: IC 13-13-5-1; IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-2; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 4-21.5; IC 13-11-2; IC 13-18-11-8

Sec. 12. (a) The commissioner shall approve an organization as a training provider of cross connection control device inspectors if the training provider's proposed course meets the following requirements:

(1) The proposed course instruction and examination have a total duration of at least forty (40) hours.

(2) The proposed course deals with matters directly related to the cross connection control devices that include, but are not limited to, the following:

(A) Cross connection identification, degree of hazard, prevention, control devices, and practices.

(B) Backflow prevention assembly field test procedures and gage accuracy verification, Section 9 from the "Manual of Cross Connection Control", ninth edition, 1993, from the Foundation for Cross Connection Control and Hydraulic Research, University of Southern California.

(C) Cross connection control device inspection, repair, and maintenance.

(D) Content, intent, and related policy of this rule.

(E) Responsibilities of the customer, public water system, and cross connection control device inspector.

(3) Each instructor of the proposed course must be recognized by Indiana as a cross connection control device inspector and is qualified by academic work or practical experience directly related to cross connection control device inspection to teach the assigned subject.

(4) Includes both a written and oral examinations proctored by different instructors and meet the following requirements:

(A) A written examination which tests the student's comprehension of the material discussed in subdivision (2).

(B) An oral examination which tests the student's ability and competency to perform inspections, test procedures specified under subdivision (2)(B) and troubleshooting on cross connection control devices.

(5) The organization submits a written request to the commissioner for approval as a training provider of cross connection control device inspectors. The request shall contain the following:

(A) The name, address, and telephone number of the organization, name of course, specific topics on which there are to be presentations, time devoted to each topic, and dates and locations where the course will be offered.

(B) All instructor's names, registration numbers, educational backgrounds, professional experiences, and current professional affiliations.

(C) Information to demonstrate fulfillment of the requirements of subdivision (2) to

the satisfaction of the commissioner.

(D) A written class outline.

(b) The commissioner's approval of an organization as a training provider of cross connection control device inspectors shall be valid for a duration of five (5) years.

(c) All training providers must maintain records on the date of all courses, the names of all individuals attending the course, duration of the course, all instructor's names, and the program content. These records shall be maintained for five (5) years.

(d) Training providers must submit to the commissioner a record of individuals attending courses within thirty (30) days of the conclusion of the course. These records shall be maintained for a five (5) year period. The record shall contain the following:

(1) Name of course.

(2) Name, address, and current phone number of individual attending course.

(3) Date of course.

(4) Performance on the written and oral examinations required by subsection (a)(4).

(e) The commissioner may revoke the approval of a training provider, following a hearing pursuant to IC 4-21.5, when it is found that the training provider has violated any of the provisions set out in the approval of the training provider's cross connection control device inspectors course, in this rule or IC 13-18-11-8. *(Water Pollution Control Board; 327 IAC 8-10-12)*

SECTION 33. 327 IAC 8-10-13 IS ADDED TO READ AS FOLLOWS:

327 IAC 8-10-13 Incorporation by reference

Authority: IC 13-14-8; IC 13-14-9; IC 13-15-1-2; IC 13-15-2-1; IC 13-18-3-1; IC 13-18-4-1

Affected: IC 13-11-2; IC 13-13-5-1; IC 13-18-2

Sec. 13. (a) The following materials, including titles and names and addresses of where they may be located for inspection and copying, are incorporated by reference into this rule:

(1) "List of Approved Backflow Prevention Assemblies, August 27, 1997, Foundation for Cross Connection Control and Hydraulic Research, University of Southern California", Foundation for Cross Connection Control and Hydraulic Research, University of Southern California, Kaprielian Hall 200, Los Angeles, California 90089-2531 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206.

(2) Backflow Prevention Assembly Field Test Procedures and Gage Accuracy Verification, Section 9 from the "Manual of Cross Connection Control", ninth edition, 1993, Foundation for Cross Connection Control and Hydraulic Research, University of Southern California, Kaprielian Hall 200, Los Angeles, California 90089-2531 or from the Indiana Department of Environmental Management, Office of Water Management, Indiana Government Center-North, 100 North Senate Avenue, Room 1255, Indianapolis, Indiana 46206.

(b) The technical standards presented in subsection (a) are continuously revised on a twenty-

four month cycle. The commissioner shall commence rulemaking efforts to update the documents incorporated by reference in this section. *(Water Pollution Control Board; 327 IAC 8-10-13)*